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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,449	12/12/2003	Shawn David Roman	5490-259COB	2026
27572 7590 01/22/2008 HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER SHAFFER, RICHARD R	
			ART UNIT 3733	PAPER NUMBER
			MAIL DATE 01/22/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/735,449

Applicant(s)

ROMAN ET AL.

Examiner

Richard R. Shaffer

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12-15, 18-20 and 28-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-15, 18-20 and 28-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 19th, 2007 has been entered.

Double Patenting

The examiner acknowledges that applicant intends to file a Terminal Disclaimer at a later date. Until such is filed, the Double Patenting Rejection stands.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6, 12-15 and 18-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,685,707. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the two sets of claims lies in the fact that the patent claims includes many more elements and is thus more specific than the application claims. It has been held that the generic invention is anticipated by the species. See *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

Claim Objections

Claims 34 and 41 are objected to because they recite the limitations "slats." Applicant is referring to the disclosed "slots" (reference number **105**) of the application. It is required that applicant correct for the misspelling in the next correspondence. For examination purposes, the limitation "slats" has been interpreted as being "slots."

Claim Rejections - 35 USC § 112

The amendments to the claims filed on December 19th, 2007 are acknowledged and accepted by the examiner. The previous rejections under 35 U.S.C. 112, 1st and 2nd paragraphs are hereby withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hopf (US Patent 5,814,046).

Hopf discloses a device (**Figures 3 and 5**) comprising: a disk-shaped planar cap (**23**) having a first engaging member (internal threading) and a gripping feature thereon (flat sides for allowing a tool to grip); a planar disk-shaped base (**3**) opposing the cap; the base defines a collar by aperture (**7**); a post (**1**) with threading/ribbing (**11**) extending substantially an entire length of the post; the post (**1**) is rotatably attached to the base and cap; the post (**1**) having an engaging portion defined on a terminal end (any half of the post can be reasonably interpreted as a terminal end) which engages the collar (it contacts the base within the aperture); the post (**1**) having a D-shaped keyed section (**12**) with a torque-limiting section (where **12** turns to **11**) inherently preventing a level of over tightening of the cap relative to the base; and an applier (**14, Figure 5**) having a keyed bore (**28**) to interact with the keyed section (**12**) of post (**1**).

Claims 1, 12, 18-20, 28, 29, 31-33-36 and 38-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Lerch (US Patent 6,068,631).

Lerch discloses (**Figures 1-8**) a titanium (**Column 2, Lines 1-3**) assembly comprising: a disk-shaped cap (**22** and **112b** together) with teeth (**223**); a disk-shaped base (**21**) with slots (**214**) about an aperture (**211**) which defines a collar; a post (**11**) with an enlarged head defines a channel between itself and torque limiting feature (**112c**); and the post having threads (**112a**) to engage the corresponding mating portion of cap (**112b**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 12-15, 18-20, 28-31, 37-41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuras (US Patent 6,585,739) in view of Bremer et al (US Patent 6,022,351).

Kuras discloses a device (**Figures 1-9**) comprising: a cap (**50**) defining a planar engaging end (could be any of these elements: **84, 98, 104, 74, 76**) with teeth (**92, 102**); a base (**44**) opposing the engaging end of the cap; the base (**44**) defining a collar (See **Figure 5** at an aperture **146**); a post (**46 or 250**) having a threading/ribbing extending substantially an entire length of the post; the post having an enlarged head/engaging portion (**140**) at a terminal end that engages the collar; the enlarged head defines a channel (between **140** and threading **160**) which receives a periphery of the base (see **Figure 5**); the post having a keyed section (**142**) to receive an applier (**Column 4, Lines 40-42**); and the device made of titanium (**Column 3, Lines 15-18**). The cap and base define substantially equivalent diameters (across the shorter distance of **50**) and the collar is defined at a central recess of the base and the enlarged head seats in the central recess.

Kuras discloses all of the claimed limitations except is silent of a torque-limiting feature. It is well-known in the art to use torque-limiting, force limiting, and/or frangible

components to limit the force in tightening components, such as taught by Bremer et al (Column 4, Lines 44-48). Bremer et al explicitly state that the post element can have at least one weakened section of significantly less thickness to prevent over tightening thereby preventing ratchet teeth from breaking. As seen in Kuras, ratchet teeth and threaded engagement are both anticipated and interchangeable.

It would have been obvious to one having ordinary skill in the art at the time of invention to provide for torque/force limiting structure (usually a reduced cross-sectional area relative to the rest of the force transmission member) to the device of Kuras in order to prevent over tightening of the device, which in turn would cause harm to the subject being operated on.

It would have further been a matter of design choice to one having ordinary skill in the art at the time of the invention to choose where such break points are located such as where the keyed section meets the rest of the shaft. Applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configuration a person of ordinary skill in the would find obvious in order to provide for a means to prevent over tightening. *In re Dailey and Eilers*, 149 USPQ 47 (1966).

Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuras in view of Bremer et al and optionally in further view of Hopf.

Kuras in view of Bremer at disclose and teach all of the claimed limitations except for a D-shaped cross-section for the torque-limiting feature where the rounded portion is substantially equivalent with an outer radius of the rest of the post.

As stated above, reducing the cross-sectional area of a shaft has been a well known matter of creating a torque-limiting section. It would have been a matter of preference should one desire to equally remove material from all around (like Bremer et al) or merely make a single cut inward from a given direction (thereby forming a D-shape cross-section at the weakened joint) with predictable results.

Also, Hopf shows a transmission member (12), which inherently controls the total amount of torque capable of being transmitted to a post. It would have been a mere substitution of workable parts to utilize the D-shaped transmission element of Hopf for the hexagonal (142) transmission of Kuras to provide for a means to drive the post with predictable results.

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopf.

Hopf discloses all of the claimed limitations except for the device made of non-resorbable titanium. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the device of titanium, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

Applicant's arguments filed December 19th, 2007 have been fully considered but they are not persuasive.

In response to applicant's comments regarding Hopf, the claims do not recite "teeth," merely a "gripping feature." As explained previously in this Office Action, anything that allows the device to be gripped could be interpreted as being a "gripping feature." Further, as also explained in the current Office Action, the terminal end can be as broad as the last half of something.

In response to applicant's comments regarding the combination of Kuras in view of Bremer et al, the current Office Action points out several locations of a planar engaging end containing teeth. Further, it was shown how the enlarged head of Kuras does indeed "define" a channel (by being enlarged like the threading thereby defining a channel between them, see Figure 5).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard R. Shaffer whose telephone number is 571-272-8683. The examiner can normally be reached on Monday-Friday (7am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


EDUARDO ROBERT
SUPERVISORY PATENT EXAMINER

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Richard Shaffer
January 13th, 2008